

## CLAIMS:

1. A control and compensation method for laser outputting, said method is used to compensate power of laser outputting within an unstable working area for obtaining consistence of energy same as a state in a stable working area, said method is characterized by that:  
5 before laser outputting, a short pulse by the table indexed by laser off time is used to energize laser to increase reaction speed of said laser; and an unstable working area thereafter is divided into a plurality of sections, each of said sections represents a reaction time value, and a  
10 reference table is used to record compensation power value required for each corresponding one of said reaction time values; so that when said laser outputting is within said unstable working area, its power is compensated in reference to said reference table for various positions of said sections.
- 15 2. The control and compensation method for laser outputting as in claim 1, wherein said unstable working area is divided into  $n$  sections ( $n$  is an integer larger than 1).
3. The control and compensation method for laser outputting as in claim 1, wherein said compensation power value is determined in  
20 corresponding to one of said reaction time values.
4. The control and compensation method for laser outputting as in claim 1, wherein
  - a. upon starting emission of said laser, said laser is in a low energy state, a preset pulse is used to charge said laser system to increase  
25 reaction speed of said laser; width of said pulse is determined by a

time when said laser system is turned off;

b. then power of said laser outputting is compensated in reference to said reference table;

c. when said laser outputting is kept on within said unstable working area, said power is automatically compensated in reference to said reference table by automatically checking out positions of said sections following increasing of work output;

d. when said laser outputting passes over said unstable working area to said stable working area, said corresponding one of said reaction time values is a constant value, and compensation stops and normal energy output is maintained.

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